Docket No.: 2038-323 PATENT

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

:

Takaaki SHIMADA et al.

Serial No. 10/764,589

Group Art Unit: 3761

Filed: July 6, 2007

Examiner: Melanie Jo Hand

For: PANTS-TYPE DISPOSABLE WEARING ARTICLE

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Attn: BOARD OF PATENT APPEALS AND INTERFERENCES

## APPELLANT'S BRIEF UNDER 37 C.F.R. § 41. 37(c)

This brief is in furtherance of the Notice of Appeal, filed in this case on July 13, 2007..

The fees required under § 41.20 and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying transmittal of Appeal Brief.

Only one copy of this brief is required under § 41.37.

This brief contains these items under the following headings, and in the order set forth below  $(37 \ C.F.R. \ \S \ 41.37(c))$ :

- I. Real Party in Interest.
- II. Related Appeals and Interferences.
- III. Status of Claims.
- IV. Status of Amendments.
- V. Summary of Claimed Subject Matter.
- VI. Grounds of Rejection to be Reviewed on Appeal.
- VII. Argument.
- VIII. Claims Appendix.
- IX. Evidence Appendix.
- X. Related Proceedings Appendix.

### I. REAL PARTY IN INTEREST

The real party in interest in this appeal is UNI-CHARM Corporation of 182 Shimobun, Kinsei-cho, Shikokuchuo-shi, Ehime-ken, JAPAN.

### II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

### III. STATUS OF CLAIMS

### A. Total Number of Claims in Application

There is a total of 22 claims in the application, which are identified as claims 1-22.

### B. Status of all the claims

- 1. Claims cancelled: claims 1-3, 7-10 and 17  $^{1}$
- 2. Claims withdrawn from consideration but not cancelled: none
- 3. Claims pending: claims 4-6, 11-16, 18-22  $^2$
- 4. Claims allowed: none
- 5. Claims rejected: claims 1-22

### C. Claims on Appeal

Claims on appeal are claims 4-6, 11-16, 18-22 <sup>3</sup> as rejected by the Final Office Action dated March 14, 2007.

<sup>&</sup>lt;sup>1</sup> See Section IV Status of Amendments below.

### IV. STATUS OF AMENDMENTS

For purposes of appeal, Appellant filed an after-final Amendment on June 14, 2007 to not only place the claims on appeal, i.e., claims 4-6, 11-16, and 18-22, in better form, <sup>4</sup> but also simplify the issues for appeal by canceling claims 1-3, 7-10 and 17, without raising new issues or requiring further search.

The June 14, 2007 Amendment was erroneously denied entry by Examiner Hand's Advisory Action mailed July 6, 2007.

A Petition under *37 CFR 1.181* was timely filed on September 6, 2007 to request consideration of Examiner Hand's July 6, 2007 Advisory Action and entry of the June 14, 2007 Amendment.

For the purpose of this Appeal Brief, the claim amendments presented in the June 14, 2007 Amendment are assumed to have been entered by the Technology Center Director as a result of Appellant's September 6, 2007 Petition.

### V. SUMMARY OF CLAIMED SUBJECT MATTER

For the purpose of this appeal brief only, the claimed subject matter will be explained herein below with references to the specification by page and line number, and to the drawings by reference characters.

Independent **claim 4** is directed to a pants-type disposable wearing article (1A in FIG. 1 or 1B in FIG. 7), comprising:

<sup>&</sup>lt;sup>2</sup> See Section IV Status of Amendments below.

<sup>&</sup>lt;sup>3</sup> See Section IV Status of Amendments below.

a liquid-impervious base sheet (2, FIGs. 4 and 10) defining front (6, FIGs. 2 and 8) and rear (8, FIGs. 2 and 8) waist regions opposed to each other and a crotch region (7, FIGs. 2 and 8) extending in a longitudinal direction (M, FIGs. 2 and 8) of said article between said front and rear waist regions (6, 8);<sup>5</sup>

a liquid-absorbent panel (3, FIGs. 4 and 10) extending over said crotch region (7) and further into said front and rear waist regions (6, 8);<sup>6</sup>

said base sheet (3) having, in said front and rear waist regions (6, 8), a waist-surrounding end zone (9, FIGs. 2 and 8) extending in a transverse direction (L, FIGs. 2 and 8) of said article, a pair of waist lateral zones (10, FIGs. 2 and 8) extending in the longitudinal direction (M) and, in said crotch region (7), a pair of crotch lateral zones (11, FIGs. 2 and 8) extending in leg-surrounding directions (N, FIGs. 1 and 7), respectively;<sup>7</sup>

said base sheet (2) being provided with

a waist-surrounding first elastic member (18, FIGs. 2 and 8) extending in the transverse direction (L) along said waist-surrounding end zone (9) and being contractible in said transverse direction (L),<sup>8</sup>

a plurality of waist-surrounding second elastic members (19, FIGs. 2 and 8) lying below said first elastic members (18) and being contractible in said transverse direction (L), and

<sup>&</sup>lt;sup>4</sup> See Section VIII Claims Appendix below.

<sup>&</sup>lt;sup>5</sup> See, for example, page 11, lines 6-7 and 11-13.

<sup>&</sup>lt;sup>6</sup> See, for example, page 11, line 7.

<sup>&</sup>lt;sup>7</sup> See, for example, page 11, lines 13-20.

<sup>&</sup>lt;sup>8</sup> See, for example, page 12, lines 15-24.

<sup>&</sup>lt;sup>9</sup> See, for example, page 13, lines 1-3.

a plurality of leg-surrounding elastic members (23, FIGs. 2 and 8) extending along said crotch lateral zones (11) in the leg-surrounding directions (N), respectively, and being contractible in said leg-surrounding directions (N), respectively;<sup>10</sup>

said second elastic members (19) being located in said crotch region (7) and at least one of said front and rear waist regions (6, 8) and spaced apart one from another by a predetermined interval in said longitudinal direction (M);<sup>11</sup> and

said waist lateral zones (10) being connected together to form a waist-hole (4, FIGs. 1 and 7) and a pair of leg-holes (5, FIGs. 1 and 7);<sup>12</sup>

wherein

each of said second elastic members (19) has

fixed end portions (21, FIGs. 2 and 8) secured to said waist lateral zones (10) and said crotch lateral zones (11) in vicinities of respective side edges (12, FIGs. 2 and 8) of said lateral zones (10, 11), <sup>13</sup> and

a free middle portion (22, FIGs. 2 and 8) connecting and extending between said fixed end portions (21) across said panel (3) in said transverse direction (L) and being directly secured neither to said base sheet (2) nor to said panel (3);<sup>14</sup> and

said free middle portions (22) of said second elastic members (19) and said legsurrounding elastic members (23) cross, without intersecting, one another in at least said

<sup>&</sup>lt;sup>10</sup> See, for example, page 14, lines 1-10.

<sup>&</sup>lt;sup>11</sup> See, for example, page 13, lines 3-10.

<sup>&</sup>lt;sup>12</sup> See, for example, page 12, lines 1-4 and page 11, lines 8-10.

<sup>&</sup>lt;sup>13</sup> See, for example, page 13, lines 12-16.

<sup>&</sup>lt;sup>14</sup> See, for example, page 13, lines 16-19 and the paragraph bridging pages 19-20.

crotch lateral zones (11) and are not secured together at their crossing points (26, FIGs. 3 and 9);<sup>15</sup>

said base sheet (2) comprises a first sheet (14, FIGs. 5 and 11) and a second sheet (15, FIGs. 5 and 11), said first sheet (14) being sandwiched between said panel (3) and said second sheet (15);<sup>16</sup> and

said first and second elastic members (18, 19) as well as said leg-surrounding elastic members (23) are interposed between said first sheet (14) and said second sheet (15).<sup>17</sup>

Independent claim 11 is directed to a pants-type disposable wearing article (1B in FIG. 7), comprising:

a liquid-impervious base sheet (2, FIG. 10) defining a front waist region (6, FIG. 8), a rear waist region (8, FIG. 8), and a crotch region (7, FIG. 8) extending between the front waist region (6) and the rear waist region (8) in a longitudinal direction (M, FIG. 8) of said article, said front and rear waist regions (6, 8) being attached to each other along transversely opposite side edges (12, FIG. 8) thereof so as to form a waist-hole (4, FIG. 7) and a pair of leg-holes (5, FIG. 7); <sup>18</sup>

a liquid-absorbent panel (3, FIG. 10) attached to an inner side of said base sheet (2);19

a first elastic member (18, FIG. 8) extending along a peripheral edge (9, FIG. 8) of said waist-hole (4); <sup>20</sup>

<sup>&</sup>lt;sup>15</sup> See, for example, page 15, lines 1-7, page 18, lines 9-20, and page 19, lines 1-12.

<sup>&</sup>lt;sup>16</sup> See, for example, page 12, lines 5-9.

<sup>&</sup>lt;sup>17</sup> See, for example, FIGs. 5 and 11.

<sup>&</sup>lt;sup>18</sup> See, for example, page 11, lines 6-13, and page 12, lines 1-4.

<sup>&</sup>lt;sup>19</sup> See, for example, page 11, lines 7-8.

a plurality of second elastic members (19, FIG. 8) extending across said liquidabsorbent panel (3) in at least one of said front and rear waist regions (6, 8) and between the transversely opposite side edges (12) of said front and rear waist regions (6, 8); <sup>21</sup> and

a plurality of third elastic members (23, FIG. 8) extending along peripheral edges of said leg-holes (5); <sup>22</sup>

wherein

each of said second elastic members (19) has

opposite end portions (21, FIG. 8) located outward beyond transversely opposite side edges (3b, FIG. 8) of said liquid-absorbent panel (3) and being secured to said base sheet (2),<sup>23</sup> and

a middle portion (22, FIG. 8) connecting said opposite end portions (21), extending between the transversely opposite side edges (3b) of said liquid-absorbent panel (3), and being free of direct attachment to both said base sheet (2) and said liquid-absorbent panel (3);<sup>24</sup> and

the middle portions (22) of said second elastic members (19) cross over said third elastic members (23) and are not secured to said third elastic members (23) at crossover points (26, FIG. 9) of said second and third elastic members (19, 23); <sup>25</sup>

each of said second elastic members (19) is entirely free of direct attachment to said base sheet (2) except at the opposite end portions (21);

<sup>&</sup>lt;sup>20</sup> See, for example, page 12, lines 15-24.

<sup>&</sup>lt;sup>21</sup> See, for example, page 13, lines 1-3.

<sup>&</sup>lt;sup>22</sup> See, for example, page 14, lines 1-10.

<sup>&</sup>lt;sup>23</sup> See, for example, page 13, lines 12-16.

<sup>&</sup>lt;sup>24</sup> See, for example, page 13, lines 16-19 and the paragraph bridging pages 19-20.

said base sheet (2) comprises first (14, FIG. 11) and second (15, FIG. 11) sheets, said first sheet (14) is disposed between said liquid-absorbent panel (3) and said second sheet (15), and said second and third elastic members (19, 23) are disposed between said first and second sheets (14, 15); <sup>26</sup>

said base sheet (2) further comprises a third sheet (34, FIG. 11) disposed between said first sheet (14) and said second sheet (15);<sup>27</sup> and

said second elastic members (19) are separated from said third elastic members (23) by said third sheet (34) lying between said second and third elastic members (19, 23), thereby ensuring that said second elastic members (19) are not secured to said third elastic members (23) at the crossover points (26) of said second and third elastic members (19, 23).<sup>28</sup>

Independent claim 13 is directed to a pants-type disposable wearing article (1B in FIG. 7), comprising:

a liquid-impervious base sheet (2, FIG. 10) defining a front waist region (6, FIG. 8), a rear waist region (8, FIG. 8), and a crotch region (7, FIG. 8) extending between the front waist region (6) and the rear waist region (8) in a longitudinal direction (M, FIG. 8) of said article, said front and rear waist regions (6, 8) being attached to each other along transversely opposite side edges (12, FIG. 8) thereof so as to form a waist-hole (4, FIG. 7) and a pair of leg-holes (5, FIG. 7); <sup>29</sup>

<sup>&</sup>lt;sup>25</sup> See, for example, page 15, lines 1-7, page 18, lines 9-20, and page 19, lines 1-12.

<sup>&</sup>lt;sup>26</sup> See, for example, FIG. 11.

<sup>&</sup>lt;sup>27</sup> See, for example, the paragraph bridging pages 22-23.

<sup>&</sup>lt;sup>28</sup> See, for example, page 29, lines 5-7 and page 30, lines 12-22.

 $<sup>^{\</sup>rm 29}$  See, for example, page 11, lines 6-13, and page 12, lines 1-4.

a liquid-absorbent panel (3, FIG. 10) attached to an inner side of said base sheet (2);<sup>30</sup>

a first elastic member (18, FIG. 8) extending along a peripheral edge (9, FIG. 8) of said waist-hole (4); <sup>31</sup>

a plurality of second elastic members (19, FIG. 8) extending across said liquidabsorbent panel (3) in at least one of said front and rear waist regions (6, 8) and between the transversely opposite side edges (12) of said front and rear waist regions (6, 8); <sup>32</sup> and

a plurality of third elastic members (23, FIG. 8) extending along peripheral edges of said leg-holes (5); <sup>33</sup>

wherein

each of said second elastic members (19) has

opposite end portions (21, FIG. 8) located outward beyond transversely opposite side edges (3b, FIG. 8) of said liquid-absorbent panel (3) and being secured to said base sheet (2),<sup>34</sup> and

a middle portion (22, FIG. 8) connecting said opposite end portions (21), extending between the transversely opposite side edges (3b) of said liquid-absorbent panel (3), and being free of direct attachment to both said base sheet (2) and said liquid-absorbent panel (3);<sup>35</sup> and

<sup>&</sup>lt;sup>30</sup> See, for example, page 11, lines 7-8.

<sup>&</sup>lt;sup>31</sup> See, for example, page 12, lines 15-24.

<sup>&</sup>lt;sup>32</sup> See, for example, page 13, lines 1-3.

<sup>&</sup>lt;sup>33</sup> See, for example, page 14, lines 1-10.

<sup>&</sup>lt;sup>34</sup> See, for example, page 13, lines 12-16.

<sup>&</sup>lt;sup>35</sup> See, for example, page 13, lines 16-19 and the paragraph bridging pages 19-20.

the middle portions (22) of said second elastic members (19) cross over said third elastic members (23) and are not secured to said third elastic members (23) at crossover points (26, FIG. 9) of said second and third elastic members (19, 23); <sup>36</sup> and

said base sheet (2) comprises first (14/34, FIG. 11) and second (15, FIG. 11) sheets, said first sheet (14/34) is disposed between said liquid-absorbent panel (3) and said second sheet (15),<sup>37</sup> and said second elastic members (19) are disposed between said first and second sheets (14/34, 15);<sup>38</sup>

said base sheet (2) further comprising bonding spots (35, FIG. 8) joining said first and second sheets (34, 15) in regions located between the middle portions (22) of adjacent said second elastic members (19), said bonding spots (35) limiting displacement of the middle portions (22) of said second elastic members (19) in the longitudinal direction (M) of said article without affecting contraction of said middle portions (22) in a transverse direction (L, FIG. 8) of said article.<sup>39</sup>

Independent **claim 18** is directed to a pants-type disposable wearing article (1A in FIG. 1 and 1B in FIG. 7), comprising:

a liquid-impervious base sheet (2, FIGs. 4 and 10) defining a front waist region (6, FIGs. 2 and 8), a rear waist region (8, FIGs. 2 and 8), and a crotch region (7, FIGs. 2 and 8) extending between the front waist region (6) and the rear waist region (8) in a longitudinal direction (M, FIGs. 2 and 8) of said article, said front and rear waist regions (6, 8) being

<sup>&</sup>lt;sup>36</sup> See, for example, page 15, lines 1-7, page 18, lines 9-20, and page 19, lines 1-12.

<sup>&</sup>lt;sup>37</sup> See, for example, FIG. 10.

<sup>&</sup>lt;sup>38</sup> See, for example, FIG. 11.

<sup>&</sup>lt;sup>39</sup> See, for example, the sentence bridging pages 27-28, page 32, lines 2-12, page 34, lines 5-12, and page 34, line 19 through page 35, line 8.

attached to each other along transversely opposite side edges (12, FIGs. 2 and 8) thereof so as to form a waist-hole (4, FIGs. 1 and 7) and a pair of leg-holes (5, FIGs. 1 and 7); <sup>40</sup>

a liquid-absorbent panel (3, FIGs. 4 and 10) attached to an inner side of said base sheet (2);<sup>41</sup>

a first elastic member (18, FIGs. 2 and 8) extending along a peripheral edge (9, FIGs. 2 and 8) of said waist-hole (4); <sup>42</sup>

a plurality of second elastic members (19, FIGs. 2 and 8) extending across said liquidabsorbent panel (3) in at least one of said front and rear waist regions (6, 8) and between the transversely opposite side edges (12) of said front and rear waist regions (6, 8); <sup>43</sup> and

a plurality of third elastic members (23, FIGs. 2 and 8) extending along peripheral edges of said leg-holes (5); 44

wherein

each of said second elastic members (19) has

opposite end portions (21, FIGs. 2 and 8) located outward beyond transversely opposite side edges (3b, FIGs. 2 and 8) of said liquid-absorbent panel (3) and being secured to said base sheet (2),<sup>45</sup> and

a middle portion (22, FIGs. 2 and 8) connecting said opposite end portions (21), extending between the transversely opposite side edges (3b) of said liquid-absorbent panel

<sup>&</sup>lt;sup>40</sup> See, for example, page 11, lines 6-13, and page 12, lines 1-4.

<sup>&</sup>lt;sup>41</sup> See, for example, page 11, lines 7-8.

<sup>&</sup>lt;sup>42</sup> See, for example, page 12, lines 15-24.

<sup>&</sup>lt;sup>43</sup> See, for example, page 13, lines 1-3.

<sup>&</sup>lt;sup>44</sup> See, for example, page 14, lines 1-10.

<sup>&</sup>lt;sup>45</sup> See, for example, page 13, lines 12-16.

(3), and being free of direct attachment to both said base sheet (2) and said liquid-absorbent panel (3);<sup>46</sup> and

the middle portions (22) of said second elastic members (19) cross over said third elastic members (23) and are not secured to said third elastic members (23) at crossover points (26, FIGs. 3 and 9) of said second and third elastic members (19, 23); <sup>47</sup> and

said base sheet (2) comprises first (14, FIGs. 5 and 11) and second (15, FIGs. 5 and 11) sheets, and said second and third elastic members (19, 23) are disposed between said first and second sheets (14, 15); <sup>48</sup>

said base sheet (2) further comprising a plurality of adhesive zones (33, FIGs. 3 and 9) bonding said first and second sheets (14, 15) and end portions (unnumbered, best seen in FIGs. 3 and 9) of said third elastic members (23) together;<sup>49</sup>

each of said adhesive zones (33) being disposed, in the longitudinal direction (M), between the middle portions (22) of one pair of adjacent said second elastic members (19), and, in a transverse direction (L, FIGs. 2 and 8) of said article, between entire said panel (3) on the one hand and one of the end portions (21) of each of said second elastic members (19) in said pair on the other hand.<sup>50</sup>

<sup>&</sup>lt;sup>46</sup> See, for example, page 13, lines 16-19 and the paragraph bridging pages 19-20.

<sup>&</sup>lt;sup>47</sup> See, for example, page 15, lines 1-7, page 18, lines 9-20, and page 19, lines 1-12.

<sup>&</sup>lt;sup>48</sup> See, for example, FIG. 11.

<sup>&</sup>lt;sup>49</sup> See, for example, page 27, lines 15-22 and page 29, lines 1-5.

 $<sup>^{50}</sup>$  See, for example, FIGs. 3 and 9.

### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The only ground of rejection to be reviewed is the *35 U.S.C. 102(b)* rejection of claims 1-22, and hence claims 4-6, 11-16 and 18-22, as being anticipated by *Okuda* (JP 2001 157690).

### VII. ARGUMENT

The Examiner rejects claims 4-6, 11-16 and 18-22, as being anticipated by *Okuda*. Appellant respectfully traverses this erroneous rejection, because the reference as applied by the Examiner does not teach or disclose, either explicitly or implicitly, each and every element of the rejected claims.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

### Independent claim 4

As to claim 4, *Okuda* as applied by the Examiner does not teach or disclose that "said base sheet comprises a first sheet and a second sheet, said first sheet being sandwiched between said panel and said second sheet; and said first and second elastic members as well as <u>said leg-surrounding elastic members</u> are interposed between said first sheet and said second sheet."

According to the Examiner, *Okuda* discloses a first sheet at 3, a second sheet at 5,<sup>51</sup> and "leg surrounding elastics" at 61.<sup>52</sup> The reference so interpreted clearly fails to teach or disclose that "leg surrounding elastics" 61 are interposed between first sheet 3 and second sheet 5. In particular, *Okuda* discloses, at paragraph 0007,<sup>53</sup> that "leg surrounding elastics" 61, which are actually barrier flap elastics, are provided at free edges 63 of barrier flap 6 which is formed by web material 62. As can be seen in Fig. 3 of *Okuda*, an elastic member formed at a free edge of web material 62 cannot be disposed between first sheet 3 and second sheet 5 in the presently claimed manner. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 4 and claims 5-6 and 22 depending therefrom are not anticipated by *Okuda* as applied by the Examiner.

### Claim 5

As to claim 5, *Okuda* as applied by the Examiner does not teach or disclose that "said base sheet has a <u>third sheet</u> interposed between said first sheet and said second sheet; said <u>second</u> elastic members are interposed between said first and third sheets or between said second and <u>third sheets</u>; said <u>leg-surrounding elastic members</u> are interposed between the pair of sheets other <u>than the pair of sheets sandwiching said second elastic members</u>; and said second elastic members are separated from said leg-surrounding elastic members by said third sheet lying between said second and leg-surrounding elastic members, thereby ensuring that said second

<sup>&</sup>lt;sup>51</sup> See, for example, Final Office Action at page 4 the third paragraph.

 $<sup>^{\</sup>rm 52}$  See, for example, Final Office Action at page 3, line 9.

<sup>&</sup>lt;sup>53</sup> See, for example, the computer-generated translation of *Okuda*.

elastic members are not secured to said leg-surrounding elastic members at the crossover points of said second and leg-surrounding elastic members." The limitations of claim 5 are similar to those of claim 11 and find support in the original application at least as detailed above with respect to claim 11.

Claim 5 specifically recites that there are elastic members (either second elastic members or leg-surrounding elastic members) which are interposed between the second and third sheets.

The Examiner interpreted layer 5 of *Okuda* as comprising second and third sheets.<sup>55</sup>
Appellant respectfully submits that *Okuda* as applied by the Examiner does not teach or disclose any elastic member interposed between such "second and third sheets," i.e., between layers of sheet 5. The *Okuda* second elastic members 21 <sup>56</sup> are not disclosed to be interposed between layers of sheet 5.<sup>57</sup> Likewise, the *Okuda* "leg surrounding elastics" 61 cannot be interposed between layers of sheet 5, because elastics 61 are barrier elastics attached to web 62 that rises above sheet 5.<sup>58</sup> Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 5 is not anticipated by *Okuda* as applied by the Examiner.

<sup>&</sup>lt;sup>54</sup> Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

 $<sup>^{55}</sup>$  See, for example, Final Office Action at page 4, lines 7-9 from bottom.

 $<sup>^{56}</sup>$  See, for example, Final Office Action at page 3, lines 7-8.

<sup>&</sup>lt;sup>57</sup> See, for example, Okuda at 21 and 5 in FIG. 3.

<sup>&</sup>lt;sup>58</sup> See, for example, *Okuda* at 62 and 5 in FIG. 3 and the computer-generated translation of *Okuda* at paragraph [0007].

<sup>&</sup>lt;sup>59</sup> Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

Claim 5 is thus separately patentable on its own merit.

### Claim 6

As to claim 6, *Okuda* as applied by the Examiner does not teach or disclose "a plurality of welding spots at which the sheets sandwiching said second elastic members are bonded together; wherein <u>said welding spots</u> are formed in vicinities of transversely opposite side edges of said panel, <u>lie between each pair of adjacent free middle portions of said second elastic members</u>, and are spaced apart one from another by a predetermined distance in said longitudinal direction." The limitations of claim 6 are similar to those of claim 13 and find support in the original application at least as detailed above with respect to claim 13.

The cited portion of *Okuda*, i.e., paragraphs 0014 and 0015,<sup>60</sup> discloses at best how the elastics 21, 22 should be attached to the diaper body to define inelastic regions 12B, 12A. The cited portion neither teaches how the layers, e.g., 3 and 5, defining the diaper body are attached to one another, nor discloses any relationship between the middle portions of elastics 21 and any bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 6 is not anticipated by *Okuda* as applied by the Examiner.

Claim 6 is thus separately patentable on its own merit.

<sup>&</sup>lt;sup>60</sup> See, for example, the computer-generated translation of *Okuda*.

<sup>&</sup>lt;sup>61</sup> Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

### Independent Claim 11

- 1. As to claim 11, *Okuda* as applied by the Examiner does not teach or disclose the limitation that "said base sheet comprises first and second sheets, said first sheet is disposed between said liquid-absorbent panel and said second sheet, and said second and third elastic members are disposed between said first and second sheets," which is similar to the limitation argued above with respect to claim 4. Thus, claim 11 and claim 12 depending therefrom are not anticipated by *Okuda* as applied by the Examiner for at least the reason(s) presented with respect to claim 4.
- 2. Claim 11 further includes limitations that "said base sheet further comprises a third sheet disposed between said first sheet and said second sheet; and said second elastic members are separated from said third elastic members by said third sheet lying between said second and third elastic members, thereby ensuring that said second elastic members are not secured to said third elastic members at the crossover points of said second and third elastic members."

Like claim 5, the Examiner interpreted layer 5 of *Okuda* as comprising second and third sheets and alleged <sup>62</sup> that second elastic members 21 are separated from "leg surrounding elastics" 61 by the third sheet, i.e., the inner layer of sheet 5. Appellant respectfully disagrees, because both second elastic members 21 and "leg surrounding elastics" 61 in web 62 are located on the same side of sheet 5, i.e., on the same side of the "third" sheet/inner layer of sheet 5. Therefore, second elastic members 21 and "leg surrounding elastics" 61 are not separated by any portion of sheet 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows

<sup>&</sup>lt;sup>62</sup> See, for example, Final Office Action at page 6, lines 1-3 from bottom.

<sup>&</sup>lt;sup>63</sup> See, for example, Okuda at 21, 62 and 5 in FIG. 3.

from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 11 and claim 12 depending therefrom are not anticipated by *Okuda* as applied by the Examiner.

#### Claim 12

1. As to claim 12, *Okuda* as applied by the Examiner does not teach or disclose the limitation that "said second elastic members are disposed between said second sheet and said third sheet." The Examiner admitted the above, but argued that it would have been obvious to modify *Okuda* to include the claim feature "since the device of *Okuda* seeks to solve a similar problem in the art, i.e., providing an absorbent article with elastics for proper fit." <sup>65</sup>

The Examiner's obviousness-type argument is improper, because claim 12 is apparently rejected under 35 U.S.C. 102(b) which is the only provision of 35 U.S.C. cited by the Examiner.<sup>66</sup> The Examiner's obviousness-type argument is also improper, because it lacks an adequate suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.<sup>67</sup> The Examiner's argument reproduced

<sup>64</sup> Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

<sup>&</sup>lt;sup>65</sup> See, for example, Final Office Action at page 7, the second full paragraph.

<sup>&</sup>lt;sup>66</sup> See, for example, Final Office Action at page 2.

<sup>&</sup>lt;sup>67</sup> To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The rule is obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

above lacks an apparent <u>reason</u> why a person of ordinary skill in the art would have combined/modified the prior art elements in the manner claimed.<sup>68</sup>

2. Claim 12 further recites that "said base sheet further comprising bonding spots joining said third and second sheets in regions located between the middle portions of adjacent said second elastic members, said bonding spots limiting displacement of the middle portions of said second elastic members in the longitudinal direction of said article without affecting contraction of said middle portions in a transverse direction of said article." The limitations of claim 12 are similar to those of claim 13 and find support in the original application at least as detailed above with respect to claim 13.

Like claim 6, the Examiner cited paragraphs 0014-0015 of *Okuda* as teaching the claim limitation.<sup>69</sup> Appellant respectfully disagree, because the cited portion of *Okuda* discloses at best how the elastics 21, 22 should be attached to the diaper body to define inelastic regions 12B, 12A. The cited portion neither teaches how the layers, e.g., 3 and 5, defining the diaper body are attached to one another, nor discloses any relationship between the middle portions of elastics 21 and any bonding/attaching points of layers 3 and 5.

In addition, the Examiner's cited paragraphs 0014-0015 of *Okuda* do not teach or suggest how any bonding spots between layers 3 and 5 could limit "displacement of the middle portions of said second elastic members in the longitudinal direction of said article without affecting contraction of said middle portions in a transverse direction of said article," as presently claimed. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows

<sup>&</sup>lt;sup>68</sup> Often, it will be necessary... to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. *KSR Int'l. Co v. Teleflex Inc.*, No. 04-1350 (U. S., April 30, 2007), at 14.

from the teachings of the applied prior art."<sup>70</sup> Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 12 is not anticipated by *Okuda* as applied by the Examiner.

Claim 12 is thus separately patentable on its own merit.

### <u>Independent claim 13</u>

Claim 13 includes limitations similar to those discussed at point 2 above with respect to claim 12, i.e., "said base sheet further comprising bonding spots joining said first and second sheets in regions located between the middle portions of adjacent said second elastic members, said bonding spots limiting displacement of the middle portions of said second elastic members in the longitudinal direction of said article without affecting contraction of said middle portions in a transverse direction of said article." Thus, claim 13 and claims 14-16 depending therefrom are not anticipated by *Okuda* for at least the reason presented at point 2 with respect to claim 12.

### Claim 14

As to claim 14, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0014-0015 of *Okuda* disclose the claim feature that "some of said bonding spots are arranged along said transversely opposite side edges of said panel and between entire said panel on the one hand and the end portions of said second elastic members on the other hand."

As discussed above, the cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

<sup>&</sup>lt;sup>69</sup> See, for example, Final Office Action at page 7, the first full paragraph.

<sup>&</sup>lt;sup>70</sup> Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 14 is not anticipated by *Okuda* as applied by the Examiner.

Claim 14 is thus separately patentable on its own merit.

#### Claim 15

As to claim 15, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0014-0015 of *Okuda* disclose the claim feature that "said base sheet, in an <u>entire</u> region underlying said panel, is <u>free</u> of said bonding spots."

As discussed above, the cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 15 is not anticipated by *Okuda* as applied by the Examiner.

<sup>&</sup>lt;sup>71</sup> *Id*.

<sup>&</sup>lt;sup>72</sup> *Id*.

Claim 15 is thus separately patentable on its own merit.

### Claim 16

As to claim 16, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0014-0015 of *Okuda* disclose the claim feature that "said bonding spots are presented between every pair of adjacent said second elastic members so as to prevent said adjacent second elastic members from forming a bundle with each other."

As discussed above, the cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 16 is not anticipated by *Okuda* as applied by the Examiner.

Claim 16 is thus separately patentable on its own merit.

#### Claim 18

1. Claim 18 includes limitations similar to those discussed above with respect to claim 4, i.e., "said base sheet comprises first and second sheets, and said second and third elastic members are disposed between said first and second sheets." Thus, claim 18 and claims 19-21

<sup>&</sup>lt;sup>73</sup> Id.

depending therefrom are not anticipated by *Okuda* for at least the reason presented with respect to claim 4.

2. Still with respect to claim 18, *Okuda* does not teach or disclose "said base sheet further comprising a plurality of <u>adhesive zones bonding said first and second sheets and end portions of said third elastic members</u> together; each of said adhesive zones being disposed, in the longitudinal direction, <u>between the middle portions of one pair of adjacent said second elastic members</u>, and, in a transverse direction of said article, <u>between entire said panel on the one hand and one of the end portions of each of said second elastic members in said pair on the other hand."</u>

Assuming *arguendo* that the *Okuda* reference as applied by the Examiner indeed included adhesive zones bonding end portions of third elastic members 61 with first and second sheets 3, 5, such adhesive zones, as can be seen in Fig. 1 of *Okuda*, must be positioned near the end portions of third elastic members 61 and cannot be disposed in the longitudinal direction between middle portions of second elastic members 21 in the presently claimed manner.

Further, since the end portions of *Okuda*'s third elastic members 61 are all disposed within the boundary of absorbent panel 4, the reference as applied by the Examiner cannot meet the claim requirement that each adhesive zones be disposed, in a transverse direction of said article, between entire said panel on the one hand and one of the end portions of each of said second elastic members in said pair on the other hand as presently claimed. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

<sup>&</sup>lt;sup>74</sup> Id.

Therefore, Applicants respectfully submit that claim 18 and claims 19-21 depending therefrom are not anticipated by *Okuda* as applied by the Examiner.

#### Claim 19

As to claim 19, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0015 and 0022 of *Okuda* disclose the claim feature that "<u>each</u> of said adhesive zones is <u>spaced</u> in the <u>longitudinal direction</u> of said article from the middle portions of the adjacent second elastic members between which said adhesive zone is disposed."

The cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 19 is not anticipated by *Okuda* as applied by the Examiner.

Claim 19 is thus separately patentable on its own merit.

### Claim 20

As to claim 20, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0015 and 0022 of *Okuda* disclose the claim feature that "each of said adhesive zones is elongated in the transverse direction of said article, and spaced in said transverse direction

<sup>&</sup>lt;sup>75</sup> *Id*.

from the end portions of the adjacent second elastic members between which said adhesive zone is disposed."

The cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 20 is not anticipated by *Okuda* as applied by the Examiner.

Claim 20 is thus separately patentable on its own merit.

#### Claim 21

As to claim 21, Appellant respectfully disagrees with the Examiner's allegation that paragraphs 0015 and 0022 of *Okuda* disclose the claim feature of "a plurality of <u>further adhesive zones</u> different from the adhesive zones that bond said first and second sheets and the end portions of said third elastic members together, said further adhesive zones bonding the end portions of the second elastic members to the base sheet; wherein each of <u>said adhesive zones</u> is <u>spaced in said transverse direction from the further adhesive zones</u> at the end portions of the adjacent second elastic members between which said adhesive zone is disposed."

The claim feature finds support in at least Fig. 3 which discloses a plurality of further adhesive zones 32 different from the adhesive zones 33 that bond said first and second sheets 14,

<sup>&</sup>lt;sup>76</sup> *Id*.

15 and the end portions of said third elastic members 23 together, said further adhesive zones 32 bonding the end portions of the second elastic members 19 to the base sheet 2; wherein each of said adhesive zones 33 is spaced in said transverse direction from the further adhesive zones 32 at the end portions of the adjacent second elastic members 19 between which said adhesive zone 33 is disposed.

The Examiner's cited passages only disclose how elastics 21, 22 should be bonded to the diaper body, and are silent on any attaching points of the layers, e.g., 3 and 5, defining the diaper body or any relationship between the middle portions of elastics 21 and such bonding/attaching points of layers 3 and 5. Thus, *Okuda* as applied by the Examiner does not explicitly teach or disclose the claimed invention.

The Examiner has failed to provided any "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." Thus, *Okuda* as applied by the Examiner does not implicitly teach or disclose the claimed invention.

Therefore, Applicants respectfully submit that claim 21 is not anticipated by *Okuda* as applied by the Examiner.

Claim 21 is thus separately patentable on its own merit.

<sup>&</sup>lt;sup>77</sup> Id.

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Each of the Examiner's rejections has been traversed. Accordingly, Applicant respectfully submits that all claims on appeal are considered allowable. Accordingly, reversal of the Examiner's Final Rejection is believed appropriate and courteously solicited.

If for any reason this Appeal Brief is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned, Applicant's attorney of record.

Respectfully submitted,

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### VIII. CLAIMS APPENDIX

4. A pants-type disposable wearing article, comprising: a liquid-impervious base sheet defining front and rear waist regions opposed to each other and a crotch region extending in a longitudinal direction of said article between said front and rear waist regions;

a liquid-absorbent panel extending over said crotch region and further into said front and rear waist regions;

said base sheet having, in said front and rear waist regions, a waist-surrounding end zone extending in a transverse direction of said article, a pair of waist lateral zones extending in the longitudinal direction and, in said crotch region, a pair of crotch lateral zones extending in leg-surrounding directions, respectively;

said base sheet being provided with

a waist-surrounding first elastic member extending in the transverse direction along said waist-surrounding end zone and being contractible in said transverse direction,

a plurality of waist-surrounding second elastic members lying below said first elastic members and being contractible in said transverse direction, and

a plurality of leg-surrounding elastic members extending along said crotch lateral zones in the leg-surrounding directions, respectively, and being contractible in said leg-surrounding directions, respectively;

said second elastic members being located in said crotch region and at least one of said front and rear waist regions and spaced apart one from another by a predetermined interval in said longitudinal direction; and

said waist lateral zones being connected together to form a waist-hole and a pair of leg-holes;

wherein

each of said second elastic members has

fixed end portions secured to said waist lateral zones and said crotch lateral zones in vicinities of respective side edges of said lateral zones, and

a free middle portion connecting and extending between said fixed end portions across said panel in said transverse direction and being directly secured neither to said base sheet nor to said panel; and

said free middle portions of said second elastic members and said leg-surrounding elastic members cross, without intersecting, one another in at least said crotch lateral zones and are not secured together at their crossing points;

said base sheet comprises a first sheet and a second sheet, said first sheet being sandwiched between said panel and said second sheet; and

said first and second elastic members as well as said leg-surrounding elastic members are interposed between said first sheet and said second sheet.

## 5. The wearing article according to claim 4, wherein:

said base sheet has a third sheet interposed between said first sheet and said second sheet;

said second elastic members are interposed between said first and third sheets or between said second and third sheets;

said leg-surrounding elastic members are interposed between the pair of sheets other than the pair of sheets sandwiching said second elastic members; and

said second elastic members are separated from said leg-surrounding elastic members by said third sheet lying between said second and leg-surrounding elastic members, thereby ensuring that said second elastic members are not secured to said leg-surrounding elastic members at the crossover points of said second and leg-surrounding elastic members.

6. The wearing article according to claim 4, further comprising a plurality of welding spots at which the sheets sandwiching said second elastic members are bonded together;

wherein said welding spots are formed in vicinities of transversely opposite side edges of said panel, lie between each pair of adjacent free middle portions of said second elastic members, and are spaced apart one from another by a predetermined distance in said longitudinal direction.

- 11. A pants-type disposable wearing article, comprising: a liquid-impervious base sheet defining a front waist region, a rear waist region, and a crotch region extending between the front waist region and the rear waist region in a longitudinal direction of said article, said front and rear waist regions being attached to each other along transversely opposite side edges thereof so as to form a waist-hole and a pair of leg-holes;
  - a liquid-absorbent panel attached to an inner side of said base sheet;
  - a first elastic member extending along a peripheral edge of said waist-hole;
- a plurality of second elastic members extending across said liquid-absorbent panel in at least one of said front and rear waist regions and between the transversely opposite side edges of said front and rear waist regions; and
  - a plurality of third elastic members extending along peripheral edges of said leg-holes; wherein

each of said second elastic members has

opposite end portions located outward beyond transversely opposite side edges of said liquid-absorbent panel and being secured to said base sheet, and

a middle portion connecting said opposite end portions, extending between the transversely opposite side edges of said liquid-absorbent panel, and being free of direct attachment to both said base sheet and said liquid-absorbent panel; and the middle portions of said second elastic members cross over said third elastic members and are not secured to said third elastic members at crossover points of said second and third elastic members;

each of said second elastic members is entirely free of direct attachment to said base sheet except at the opposite end portions;

said base sheet comprises first and second sheets, said first sheet is disposed between said liquid-absorbent panel and said second sheet, and said second and third elastic members are disposed between said first and second sheets;

said base sheet further comprises a third sheet disposed between said first sheet and said second sheet; and

said second elastic members are separated from said third elastic members by said third sheet lying between said second and third elastic members, thereby ensuring that said second elastic members are not secured to said third elastic members at the crossover points of said second and third elastic members.

### 12. The article of claim 11, wherein

said second elastic members are disposed between said second sheet and said third sheet;

said base sheet further comprising bonding spots joining said third and second sheets in regions located between the middle portions of adjacent said second elastic members, said bonding spots limiting displacement of the middle portions of said second elastic members in the longitudinal direction of said article without affecting contraction of said middle portions in a transverse direction of said article.

### 13. A pants-type disposable wearing article, comprising:

a liquid-impervious base sheet defining a front waist region, a rear waist region, and a crotch region extending between the front waist region and the rear waist region in a

longitudinal direction of said article, said front and rear waist regions being attached to each other along transversely opposite side edges thereof so as to form a waist-hole and a pair of leg-holes;

- a liquid-absorbent panel attached to an inner side of said base sheet;
- a first elastic member extending along a peripheral edge of said waist-hole;
- a plurality of second elastic members extending across said liquid-absorbent panel in at least one of said front and rear waist regions and between the transversely opposite side edges of said front and rear waist regions; and

a plurality of third elastic members extending along peripheral edges of said leg-holes; wherein

each of said second elastic members has

opposite end portions located outward beyond transversely opposite side edges of said liquid-absorbent panel and being secured to said base sheet, and

a middle portion connecting said opposite end portions, extending between the transversely opposite side edges of said liquid-absorbent panel, and being free of direct attachment to both said base sheet and said liquid-absorbent panel; and

the middle portions of said second elastic members cross over said third elastic members and are not secured to said third elastic members at crossover points of said second and third elastic members; and

said base sheet comprises first and second sheets, said first sheet is disposed between said liquid-absorbent panel and said second sheet, and said second elastic members are disposed between said first and second sheets;

said base sheet further comprising bonding spots joining said first and second sheets in regions located between the middle portions of adjacent said second elastic members, said bonding spots limiting displacement of the middle portions of said second elastic members in

the longitudinal direction of said article without affecting contraction of said middle portions in a transverse direction of said article.

- 14. The article of claim 13, wherein some of said bonding spots are arranged along said transversely opposite side edges of said panel and between entire said panel on the one hand and the end portions of said second elastic members on the other hand.
- 15. The article of claim 13, wherein said base sheet, in an entire region underlying said panel, is free of said bonding spots.
- 16. The article of claim 13, wherein said bonding spots are presented between every pair of adjacent said second elastic members so as to prevent said adjacent second elastic members from forming a bundle with each other.
  - 18. A pants-type disposable wearing article, comprising:
- a liquid-impervious base sheet defining a front waist region, a rear waist region, and a crotch region extending between the front waist region and the rear waist region in a longitudinal direction of said article, said front and rear waist regions being attached to each other along transversely opposite side edges thereof so as to form a waist-hole and a pair of leg-holes;
  - a liquid-absorbent panel attached to an inner side of said base sheet;
  - a first elastic member extending along a peripheral edge of said waist-hole;
- a plurality of second elastic members extending across said liquid-absorbent panel in at least one of said front and rear waist regions and between the transversely opposite side edges of said front and rear waist regions; and
  - a plurality of third elastic members extending along peripheral edges of said leg-holes;

wherein

each of said second elastic members has

opposite end portions located outward beyond transversely opposite side edges of said liquid-absorbent panel and being secured to said base sheet, and

a middle portion connecting said opposite end portions, extending between the transversely opposite side edges of said liquid-absorbent panel, and being free of direct attachment to both said base sheet and said liquid-absorbent panel; and

the middle portions of said second elastic members cross over said third elastic members and are not secured to said third elastic members at crossover points of said second and third elastic members; and

said base sheet comprises first and second sheets, and said second and third elastic members are disposed between said first and second sheets;

said base sheet further comprising a plurality of adhesive zones bonding said first and second sheets and end portions of said third elastic members together;

each of said adhesive zones being disposed, in the longitudinal direction, between the middle portions of one pair of adjacent said second elastic members, and, in a transverse direction of said article, between entire said panel on the one hand and one of the end portions of each of said second elastic members in said pair on the other hand.

- 19. The article of claim 18, wherein each of said adhesive zones is spaced in the longitudinal direction of said article from the middle portions of the adjacent second elastic members between which said adhesive zone is disposed.
- 20. The article of claim 19, wherein each of said adhesive zones is elongated in the transverse direction of said article, and spaced in said transverse direction from the end

portions of the adjacent second elastic members between which said adhesive zone is disposed.

### 21. The article of claim 20, further comprising

a plurality of further adhesive zones different from the adhesive zones that bond said first and second sheets and the end portions of said third elastic members together, said further adhesive zones bonding the end portions of the second elastic members to the base sheet;

wherein each of said adhesive zones is spaced in said transverse direction from the further adhesive zones at the end portions of the adjacent second elastic members between which said adhesive zone is disposed.

22. The article of claim 5, wherein said third sheet carries printed indicia in a region corresponding to the middle portions of said second elastic members;

said third sheet being disposed between said second elastic member and said second sheet, and secured to said second sheet.

# IX. EVIDENCE APPENDIX

None

# X. RELATED PROCEEDINGS APPENDIX

None